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ABSTRACT

Findings from past research emphasize the importance of social isolation and Type A-B behavior in stress management and suggest that relative to Type Bs, Type As are more likely to be social isolates. A study was conducted to measure the interrelationships between Type A-B behavior, social isolation, and the perceived frequency of life stress events. Subjects were 439 undergraduates who responded to: (1) the Glass version of the Jenkins Activity Survey; (2) an Isolation Index developed as a result of pilot research for this study; and (3) the Holmes and Rahe Schedule of Recent Life Events. Results showed that relative to Type Bs, Type As were more likely to be social isolates, in that 51% of the Type As and 38% of the Type Bs rated as isolates. Social isolation was found to be less salient than Type A-B behavior as a predictor of the incidence of life stress events. There was some evidence that these variables are additive in that for both life stress measures Type A-isolates reported higher levels of stress than did other groups. Results are discussed within the framework of the buffering model of social support. (Author/NB)

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TYPE A-B BEHAVIOR, SOCIAL ISOLATION AND LIFE STRESS IN COLLEGE STUDENTS

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Paper presented at the Annual Meeting of the Western Psychological Association, 67th, Long Beach, CA, April 23-26, 1987.

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Abstract

The purpose of this study was to measure the interrelationships between Type A-B behavior, social isolation and the perceived frequency of life stress-events. Subjects were 439 undergraduate students who responded to each of the following measures: (1) the Glass version of the Jenkins Activity Survey, (2) an Isolation Index developed as the result of pilot research for this study, and (3) the Holmes and Rahe Schedule of Recent Life Events. Results showed that relative to Type Bs, Type As were more likely to be social isolates, in that 51% of the Type As and 38% of the Type Bs rated as isolates. Additionally, as measured here, social isolation was found to be less salient than Type A-B behavior as a predictor of the incidence of life-stress events. However, there is some evidence that these variables are additive in that for both life stress measures Type A - isolates reported higher levels of stress than the other groups. Results are discussed within the framework of the buffering model of social support.

TYPE A-B BEHAVIOR, SOCIAL ISOLATION AND LIFE STRESS IN COLLEGE STUDENTS[1]

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Friedman and Rosenman (1977) have identified certain personality traits that appear to contribute to the development of coronary heart disease (CHD). They have labelled this the Type A behavior pattern. Since they introduced the Type A concept a number of prospective and retrospective studies have shown that this action-emotion complex is associated with the enhanced risk of CHD (e.g., Caffrey, 1970; Glass, 1977; Jenkins, 1966; Rosenman, Brand, Jenkins, Friedman, Straus, & Wurm, 1975; Wardwell & Bahnson, 1973). Specifically, the Type A pattern is characterized by extremes in competitiveness, hostility, self-imposed deadlines, desire for recognition, achievement, haste, impatience, time urgency, inability to relax, tenseness of facial muscles, explosive speech patterns, restlessness and fatigue supression. On the other hand, Type B individuals (Friedman and Rosenman's term for non-Type A individuals) show the inverse of the Type A behavior pattern and display relative immunity to CHD (Nowack & Sassenrath, 1980).

[1]A paper presented at the meeting of the Western Psychological Association Long Beach. April, 1987.

In line with a predisposition toward CHD, Type A behavior has also been linked to such stress-related diseases as infectious mononucleosis (Barton & Hicks, 1985), allergies (Barton, Brautigan, Fogle, Freitas, & Hicks, 1982), insomnia (Hicks & Pellegrini, 1982; Hicks, Pellegrini, Martin, Garbesi, Elliott, & Hawkins, 1979), tension and migraine headaches (Hicks & Campbell, 1983). More recently, Type A behavior has been linked to the symptoms of Premenstrual Syndrome. Specifically, these include headaches, gastrointestinal symptoms and sleep problems (Hicks, Olsen, & Smith-Robison, 1986). Collectively, these studies invite the conclusion that relative to Type Bs, Type As are less able to cope with stress, and while many recent investigations have focused on the relationship between Type A behavior and risk of stress-linked disease, surprisely little attention has been paid to how Type As relate interpersonally under stress. Consistent with this view, in her recent comphrehensive review of the psychological perspectives of the Type A person, Matthews (1982) concluded that the time is ripe for advances in the psychological dimensions underlying Type A behaviors.

Type A Behavior and Social Support

Taking into account the demonstrated characteristics

of Type A persons, one could hypothesize that hostility, which some feel is the primary characteristic of the Type A syndrome, might interfere with their ability to develop an adequate social-support system. In this regard, Matthews (1982) has noted that reporting that one does not have friends and family to rely on is related to both stress symptoms and early mortality. Thus it is plausible that Type As might increase their susceptibility to stress-linked disease because, in part, as a group they lack the protective coping mechanisms that are provided by social support. In discussing the relationships between stress management and social support, Antonovsky (1974) describes the number and nature of an individual's social ties as resistance resources one can rely on during stressful life experiences. In a more recent paper, Thoits (1978) suggested that the individual's degree of social integration effects his/her ability to cope in two major ways. That is, she contends that social integration determines the amount of social support available and, thus, enables the individual to be more or less flexible in dealing with major life changes. Further, she speculated that individuals who have one or more intimate relationships have a ready source of emotional support when facing unpleasant life experiences.

As evidence for this hypothesis, Cobb (1976) has reported that involvement with people capable of providing emotional support significantly lessens the effects of such stressors as job loss, bereavement, aging, retirement and recovery from illness. Similarly, Russell, Peplau and Ferguson (1978) found that non-lonely people handle stress more effectively than lonely people.

Collectively these studies suggest that availability of social support serves as a protective mechanism against the serious consequences of life stress. However, interest is now shifting to the nature of the support system. In this regard, Brown and Harris (1978) found that confiding relationships with spouses or friends to be protective against depression, while Miller and Ingham (1976) assert that more superficial support is also of value in protecting against minor psychiatric symptoms. Moreover, they reported that just having someone to talk to is protective, even if one has not made use of it (Miller & Ingham, 1979). Consequently, results from their Livingston Survey (Miller & Ingham, 1979) illustrated that having a confidant or diffuse emotional support tends to reduce stress-related symptomatology.

Overall these studies emphasize the importance of

social isolation and Type A-B behavior in stress management and invited the speculation that relative to Type Bs, Type As are more likely to be social isolates. Therefore, the purpose of this study was to measure the interrelationships between Type A-B behavior, social isolation and the perceived frequency of life stress-events.

Method

Subjects

The subjects were 439 undergraduate university students who completed each of the measures listed below.

Variables

Jenkins Activity Survey. To measure Type A-B behavior students were asked to respond to the Glass (1977) version of the Jenkins Activity Survey (JAS) for college students. The JAS is perhaps the most commonly used objective self-administered questionnaire for assessing Type A-B behavior in this population. The JAS was scored using the system developed by Glass (1977). Like Glass, Type A individuals were defined as JAS score ≥ 8, and Type B individuals were defined as JAS score < 8.

Social isolation. Social isolation was measured using an Isolation Index, developed as the result of pilot research for this study. The 15 items which make-up

the Isolation Index are listed in Table 1.

Table 1

The Isolation Index

Instructions: Please express your feeling about each statement by indicating whether it applies (A) often (B) sometimes (C) rarely, or (D) never. Please indicate your answer by entering A,B,C, or D in the space next to each line.

1._____ I am open to new ideas from others.

2._____ When I have a problem, I should solve it myself.

3._____ I get love and support for the things I do.

4._____ I rush into a new task head first.

5._____ I like to talk to people who feel the way I do about things.

6._____When I feel anxious, I turn to a good friend.

7._____ I like to do things my way.

8._____ I have trouble expressing my emotions to others.

9._____ I seek advice about personal matters.

10.____ In a real crisis, I feel alone.

11.____ I like to know how others feel about me.

12.____ It is hard for me to talk to members of my family.

13.____ I feel relieved after I have talked about my troubles.

14.____ When I am worried, I wish that I had someone to talk to.

15.____ While I am doing something, I like feedback from others.

These items were derived in the following way. First, items from several related scales were inspected. Prominent among these were the UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978), the Eating Attitudes Test (Garner & Garfinkel, 1979), and the Eating Disorder Inventory (Garner, Olmsted, & Polivy, 1982). While none of the scales that we inspected seemed to fit the purposes of this study precisely, all included aspects of social isolation. Thus several items were selected from each scale and were rewritten (if necessary) to conform to the nature of the sample of undergraduates that was used in this study. Finally, this pool of items was submitted to a group of expert judges who selected the 15 items listed in Table 1. The Isolation Index was scored using a Likert-type format with scores above the median classified as isolates, while those below the median were classified as nonisolates.

Life stress events. Along with the JAS and Isolation Index, subjects were asked to respond to the Holmes and Rahe (1967) Schedule of Recent Life Events (SRE) for college students. The SRE is an objective instrument for measuring and weighing a variety of stressful life events that individuals have experienced in the recent past. Using the categorization developed by Holmes and Rahe

subjects were asked to checkoff how many major disturbing stressful events they had experienced on the SRE and estimate the number of these events they had dealt with (or were still dealing with) in the last 18-month period.

Results

Isolation

A purpose of this study was to measure the relationship between Type A-B behavior and social isolation. On the basis of scores on the JAS and the Isolation Index, each student was classified as either Type A or Type B and as either an isolate or a nonisolate. The observed frequency of individuals in each of these Type A-B by Isolation categories is listed in the following contingency table.

Group	Isolates	Nonisolates	N
Type A (f)	124	118	242
Type B (f)	75	122	197

We tested the difference between these distributions and found that it was significant ($\chi^2 = 7.60$, $p < .01$). These data support the hypothesis that relative to Type Bs, Type As

are more likely to be social isolates, in that 51% of the Type As and 38% of the Type Bs were rated as isolates.

Stressful Events

We measured life stress events in two ways, i.e., by asking students to respond to the SRE and to estimate the number of disturbing stressful events they had dealt with in the past 18-month period. The mean number of stressful events checked on the SRE and estimated for each Type A-B by Isolation group are listed in Table 2.

Table 2

The Mean and Standard Deviation for the Number of Stressors Checked on the SRE and Estimated

	Checked on SRE		Estimated	
	Isolates	Nonisolates	Isolates	Nonisolates
Type A	5.1 ± 2.0	4.6 ± 2.2	5.8 ± 3.6	5.2 ± 4.0
Type B	4.0 ± 2.1	4.3 ± 2.1	5.2 ± 3.9	4.5 ± 3.1

The data summarized in Table 2 were first tested by computing separate two (Type A-B) by two (isolation-nonisolation) Analysis of Variance for each stress measure. For the SRE,

we computed a significant main effect for Type A-B behavior, $F(1, 435) = 10.82$, $p < .001$. However, the main effect for isolation - nonisolation and the interaction were not significant. The results for the ANOVA computed to analyze the estimated stressors data were somewhat different. Specifically, both the main effects for Type A-B behavior and social isolation were significant (F 1, 435 = 4.12, $p < .05$ and F 1, 435 = 4.24, $p < .05$, respectively), while the interaction between these variables was not significant, $F(1, 435) = .93$.

Discussion

The main objectives of this research were to measure the relationship between Type A-B behavior and social isolation and to measure the relative role Type A-B behavior and social isolation play as salient variables in the incidence of life-stress events. Consistent with this formulation, the data support the hypothesis that relative to Type Bs, Type As are more likely to be socially isolated. In this regard, we found that 51% of the Type As rated as isolates compared to only 38% of the Type Bs. Although this relationship is reliable, it is not very robust, i.e., $\phi = .13$. With regard to the relationships between Type A-B behavior, social isolation and the incidence of life-stress

events, only the main effect for Type A-B behavior was significant for both the checked and estimated life-stress events. Thus, as measured here, social isolation appears to be less salient than Type A-B behavior as a predictor of the incidence of life-stress events. However, there is some evidence that these variables are additive in that for both life stress measures, Type A - isolates report higher levels of life stress than the other groups, and Type B - nonisolates, at least for the estimated stressors, appear to be the lowest group. Thus the relationships between Type A-B behavior and social isolation merit more study, perhaps using a more refined definition of social isolation.

In sum, the present study lends support to the view that social factors may play a less important role in the development and prevention of stress-linked disease than Type A-B behavior. However, if further research indicates that isolating events and/or isolated lives have significant effects on psychological distress, then intervention aimed at increasing the individual's integration may be indicated (Thoits, 1978). Furthermore, the findings reveal that Type A individuals may be only slightly more inclined toward social isolation than Type Bs. This point becomes salient when we combine the Type A component

with that of isolation which, may lead to increased stress perception and, perhaps, to debilitating coronary heart disease later in life. Therefore, further research of this nature calls for analysis of the Type A person taking into account situational factors and more refined measures of posssible moderator variables, such as social support, which may deflect the symptoms of life stress.

References

Antonovsky, Aaron (1974). Conceptual and methodological problems in the study of resistance resources and stressful life events. In B.S. Dohrenwend & B. P. Dohrenwend (Eds.), Stressful life events: their nature and effects (pp. 245-258). New York: Wiley.

Barton, S., Brautigan, M., Fogle, G., Freitas, R.C., & Hicks, R.A. (1982). Type A-B behavior and the incidence of allergies in college students. Psychological Reports, 50, 566.

Barton, S., & Hicks, R.A. (1985). Type A-B behavior and the incidence of infectious mononucleosis. Psychological Reports, 56, 545.

Brown, G. W., & Harris, T. (1978). Social origins of depression: A study of psychiatric disorders in women. London: Tavistock.

Caffrey, B. (1970). A multivariate analysis of sociopsychologic factors in myocardial infarctions. American Journal of Public Health, 60, 452.

Cobb, S. (1976). Social support as a moderator of life stress. Psychosomatic Medicine, 38, 300-314.

Friedman, M., & Rosenman, R.H. (1977). The key cause: Type A behavior pattern. In A. Monat & R.S. Lazarus (Eds.), Stress and coping (pp. 203-212). New York: Columbia University Press.

Garner, D. M., & Garfinkel, P. E. (1979). The eating attitudes test: An index of the symptoms of anorexia nervosa. Psychological Medicine, 9, 273-279.

Garner, D. M., Olmsted, M. P., & Polivy, J. (1982). The eating disorder inventory: A measure of cognitive/ behavioral dimension of anorexia and bulimia. In P. L. Darby, P. E. Garfinkel, D. M. Garner, D. V. (Eds), Anorexia nervosa: New developments. New York.

Glass, D. C. (1977). Behavior patterns, stress and coronary disease. Hillsdale, NJ: Erlbaum.

Hicks, R. A., & Campbell, J. (1983). Type A-B behavior and self-estimates of the frequency of headaches in college students. Psychological Reports, 52, 912.

Hicks, R. A., Olsen, C., Smith-Robison, D. (1985). Type A-B behavior and premenstrual syndrome. Psychological Reports, 59, 353-354.

Hicks, R. A., & Pellegrini, R. J. (1982). Sleep problems and Type A-B behavior in college students. Psychological Reports, 51, 196.

Hicks, R. A., Pellegrini, R. J., Martin, S., Garbesi, L., Elliott, D., & Hawkins, T. (1979). Type A behavior and normal habitual sleep duration. Bulletin of the Psychonomic Society, 14, 185-186.

Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. Journal of Psychosomatic Research, 11, 213-218.

Jenkins, C. D. (1966). Components of the coronary-prone behavior pattern: Their relationship to silent myocardial infarction and blood lipids. Journal of Disease, 19, 599-609.

Matthews, K. A. (1982). Psychological perspectives on the Type A behavior pattern. Psychological Bulletin , 91, 293-323.

Miller, P. M., & Ingham, J. G. (1976). Friends, confidants and symptoms. Social Psychiatry, 11, 51-58.

Miller, P. M., & Ingham, J. G. (1979). Reflections on the life-events-to-illness link with some preliminary findings. In I. Sarason & C. D. Spielberger (Eds.), Stress and anxiety: Vol. 6. New York: Hemisphere Publishing.

Nowack, K. M., & Sassenrath, J. M. (1980). Coronary-prone behavior, locus of control, and anxiety. Psychological Reports, 47, 359-364.

Rosenman, R. H., Brand, R. J., Jenkins, C. D., Friedman, M., Straus, R., & Wurm, M. (1975). Coronary heart disease in the western collaborative group study: Final follow-up of experience of eight and one-half years. Journal of the American Medical Association, 233, 872-877.

Russell, D., Peplau, L. A., & Ferguson, M. L. (1978). Developing a measure of loneliness. Journal of Personality Assessment, 42, 290-294.

Thoits, P. A. (1978). Life events, social integration, and psychological distress. Unpublished doctoral dissertation, Stanford University, Palo Alto.

Wardwell, W., & Bahnson, C. B. (1973). Behavioral variables and myocardial infarction in southeastern connecticut heart study. Journal of Chronic Disease, 26, 447-461.